



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 225877

TO: Shailendra Kumar
Location: REM-5C03/5C18
Art Unit: 1621
Wednesday, May 30, 2007
Case Serial Number: 10/538484

From: Les Henderson
Location: Biotech-Chem Library
REM-1B61
Phone: (571)272-2538

leslie.henderson@uspto.gov

Search Notes

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In eDAN:

Enter Application number

Click on Supplemental Content Tab ->

Sequence results are under the Search Results (click on version listed)

All other results are under Other Content (click on version listed)

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: S. Kumar Examiner #: 69594 Date: 5/24/07
Art Unit: 1621 Phone Number: 2-0640 Serial Number: 101538484
Location (Bldg/Room#): RENDEN (Mailbox #): 5C18 Results Format Preferred (circle): PAPER DISK

5C03

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Aromatic Compounds
Inventors (please provide full names): Masayuki Takenchi et al.

Earliest Priority Date: 12/12/02

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

2. (Currently Amended) The An aromatic compound according to claim 1, expressed by the following general formula (I):



wherein A represents a said fused polyaromatic hydrocarbon moiety is selected from among triphenylene, acenes, phenanthrene, perylene, fluorene, pyrene, coronene and hexabenzocoronene, said X represents a hydrogen-bonding site is selected from among atomic groups containing an amide linkage, an urea linkage, a thiourea linkage or an urethane linkage, Y represents a and said chain functional group having 3 to 18 carbon atoms, and is selected from among an alkyl group, a fluoroalkyl group and a polyethylene glycol group, and n represents an integer ranging from 2 to 10.

3. (Original) The aromatic compound according to claim 1, wherein said chain functional group has 10 to 18 carbon atoms.

2

Searcher: YH NA Sequence (#) _____ SIN _____
Searcher Phone #: _____ AA Sequence (#) _____ Questel/Orbit _____ Lexis/Nexis
Searcher Location: _____ 1 Structure (#) _____ Westlaw _____ WWW/Internet
Date Searcher Picked Up: _____ Bibliographic _____ In-house sequence systems
Date Completed: 5/29/07 Litigation _____ Commercial _____ Oligomer _____ Score/Length
Searcher Prep & Review Time: _____ Fulltext _____ Interference _____ SPDI _____ Encode/Transl
Online Time: _____ Other _____ Other (specify) _____

INVENTOR SEARCH

=> d his 167

(FILE 'HCAPLUS' ENTERED AT 16:34:25 ON 29 MAY 2007)

L67 32 S L65 AND L66
 SAV L47 KUM484HCP/A
 SAV L67 KUM484HCPIN/A

=> d que 167

L49 QUE ABB=ON PLU=ON TAKEUCHI M?/AU
 L50 QUE ABB=ON PLU=ON IKEDA M?/AU
 L51 QUE ABB=ON PLU=ON SHINKAI S?/AU
 L53 QUE ABB=ON PLU=ON (L49 OR L50 OR L51)
 L54 QUE ABB=ON PLU=ON (KYUSHU(W)TLO?)/PA,CS,SO,CO
 L56 27 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND L50 AND L51
 L57 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L54
 L58 QUE ABB=ON PLU=ON ELECTR?(2A)TRANSPORT? OR HOLE(2A) (MOBIL? OR TRANSPORT? OR TRANSFER?)
 L59 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L58
 L60 88 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 OR L57 OR L59
 L61 QUE ABB=ON PLU=ON PY<2002 OR PRY<2002 OR AY<2002 OR MY<2002 OR REVIEW/DT
 L65 55 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 AND L61
 L66 QUE ABB=ON PLU=ON (CHARGE OR ELECTR?)(2A) (MOBIL? OR TRANSPORT? OR TRANSFER?)
 L67 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L65 AND L66

INVENTOR SEARCH RESULTS

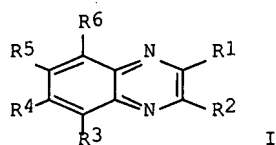
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L67 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:260075 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:294687
 TITLE: Organic electroluminescent device utilizing quinoxaline as **electron transport** material
 INVENTOR(S): **Takeuchi, Masataka**
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003100462	A	20030404	JP 2001-289773	2001 0921

PRIORITY APPLN. INFO.: <-- JP 2001-289773 2001
 0921

<--
 GI



AB The invention refers to an electroluminescent device comprising a quinoxaline derivative I [at least one of R1-6 is connected to a polymer chain, and the rest are H, halo, hydroxyl, nitro, carboxyl, carboxy ester, sulfonate, sulfonate ester, alkoxy, (un)substituted C1-20 alkyl, C2-20 alkenyl, alkynyl, (un)substituted aryl or heterocyclic] as an **electron transport** material.

L67 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:173670 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:229001
 TITLE: Phosphor light-emitting compound, phosphor light-emitting composition, and organic light emitting element
 INVENTOR(S): Tokito, Shizuo; Suzuki, Mitsunori; Tanaka, Isao; Inoue, Youji; Shirane, Koro; **Takeuchi, Masataka**; Ito, Naoko
 PATENT ASSIGNEE(S): Nippon Hosokawa Kasei, Japan; Showa Denko K.K.
 SOURCE: PCT Int. Appl., 71 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003018653	A1	20030306	WO 2002-JP8839	2002 0830

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2003342325	A	20031203	JP 2002-112352	2002 0415
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AU 2002330469	A1	20030310	AU 2002-330469	2002 0830
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US 2003091862	A1	20030515	US 2002-231060	2002 0830
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EP 1424350	A1	20040602	EP 2002-765394	2002
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, SK

CN 1547597 A 20041117 CN 2002-816692

2002

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JP 2007059939 A 20070308 JP 2006-295017

2006

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PRIORITY APPLN. INFO.:

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JP 2001-265033 A

2001

0831

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JP 2002-79129 A

2002

0320

JP 2002-112352 A

2002

0415

US 2002-392628P P

2002

0701

WO 2002-JP8839 W

2002

0830

AB The invention refers to a neutral organic polymer phosphor light-emitting compound used in an organic light emitting device, stable, with very high efficiency phosphorescence, comprising a phosphorescence light-emitting repeating unit for emitting phosphorescence and a carrier transport repeating unit.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L67 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:15802 HCAPLUS Full-text

DOCUMENT NUMBER: 138:80608

TITLE: Electrophotographic photoreceptor using
isomeric **electron-**
transporting agents and apparatus

INVENTOR(S): **Takeuchi, Masaru**

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 118 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003005396	A	20030108	JP 2001-186447	2001 0620

PRIORITY APPLN. INFO.:

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JP 2001-186447

2001

0620

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AB The photoreceptor comprises a conductive support coated with a photosensitive layer containing ≥ 2 kinds of **electron-transporting** agents having the same mol. weight and different chemical structure. The apparatus using the photoreceptor and pos. charging means is also claimed. The photoreceptor shows high sensitivity, low residual potential, and durability in repeated use.

L67 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:745167 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:259640
 TITLE: Simple and rapid method for measuring
 microorganism
 INVENTOR(S): Nasu, Masao; Misaka, Takehiko; Fujiwara, Yumi;
 Ikeda, Masafumi
 PATENT ASSIGNEE(S): International Reagents Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002281998	A	20021002	JP 2001-88128	2001 0326

PRIORITY APPLN. INFO.: <-- JP 2001-88128
 2001
 0326

AB A simple and rapid method is provided for detecting microorganism, its component and/or its activity (nucleic acid, respiratory activity, esterase activity, or else) without causing cell lysis. Microorganism or bacteria is conveniently and rapidly detected simultaneously with multiple test samples by combining a filter membrane for trapping bacteria, a device such as a microtiter plate, and an apparatus for optically reading a signal (e.g., fluorescence signal) by converting it to an elec. signal, without requiring the labor for a visual measurement, nor a fluorescence microscopy with which the problem of error among measurers is accompanied.

L67 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:864941 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:12782
 TITLE: Electrophotographic photoreceptor with
 improved stability in repeated use and
 apparatus
 INVENTOR(S): Takeuchi, Masaru; Okura, Kenichi
 PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 60 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001330972	A	20011130	JP 2000-151230	2000 0523

US 2002025484 A1 20020228 US 2001-861871 <--

2001

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US 6749979 B2 20040615
 DE 10124906 A1 20011206 DE 2001-10124906

2001

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CN 1325039 A 20011205 CN 2001-119777

2001

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PRIORITY APPLN. INFO.: JP 2000-151230 A

2000

0523

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OTHER SOURCE(S): MARPAT 136:12782

AB In the electrophotog. photoreceptor comprising a support coated with an optional undercoat layer and a mono-layer photosensitive layer containing a charge-generating agent and a **charge-transporting** agent, the **charge**-generating agent is titanyl phthalocyanine satisfying $R = (P - B)/B \leq 7.0$ (P = diffraction ray intensity value at maximum peak at Bragg angle $2\theta = 5-35^\circ$ of powder x-ray diffraction spectrum using $\text{CuK}\alpha$ ray; B = background diffraction ray intensity value). The apparatus involves the photoreceptor and a pos. charging process.

L67 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:617252 HCAPLUS Full-text

DOCUMENT NUMBER: 135:187687

TITLE: Monolayer electrophotographic photoreceptor
 containing polycarbonate binder and positive
hole-transporting agent and
electrophotographic apparatus

INVENTOR(S): Okura, Kenichi; Kitagawa, Kiyozo;
Takeuchi, Masaru

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001228637	A	20010824	JP 2000-36677	

2000

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PRIORITY APPLN. INFO.: JP 2000-36677

2000

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OTHER SOURCE(S): MARPAT 135:187687

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

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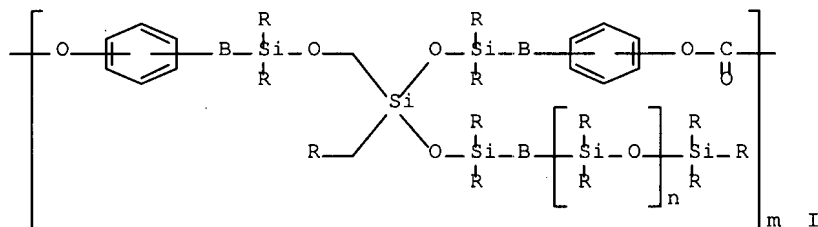
AB The photoreceptor comprises a photosensitive monolayer containing at least a polycarbonate binder with a main repeating unit I [RB1-B8 = H, C1-6 alkyl, (substituted) aryl, cycloalkyl, halo; Z = atoms required to form a carbon ring which

may be substituted with C1-6 alkyl or halo], a charge generating substance, ≥ 1 pos. hole transport substance II (RH1-H32 = H, C1-6 alkyl, C1-6 alkoxy), and an electron transport substance on an elec. conducting support optionally coated with an undercoat layer. The apparatus is characterized by involving the obtained photoreceptor and a pos. charging process. The photoreceptor shows high durability, preventing toner filming.

L67 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:376881 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:359510
 TITLE: Electrophotographic photoconductor
 INVENTOR(S): Omokawa, Shinichi; Takeuchi, Masaru;
 Kitagawa, Seizo
 PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 19 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1102126	A1	20010523	EP 2000-125039	2000 1116
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001142235	A	20010525	JP 1999-326805	1999 1117
<--				
CN 1303030	A	20010711	CN 2000-137309	2000 1117
<--				
US 6451493	B1	20020917	US 2000-714822	2000 1117
<--				
PRIORITY APPLN. INFO.:			JP 1999-326805	A 1999 1117

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AB The present invention provides an electrophotog. photoconductor provided with a superior pos. charging organic photosensitive layer by a binder capable of reducing toner deposition amount to the surface of the photoconductor providing reduced toner

consumption amount and suppressed print defects such as dirty background, wherein the photosensitive layer is a single layer type containing at least a charge generation substance, a pos. **hole transport** substance, an **electron transport** substance and a binder, where the binder contains a polycarbonate resin containing polydialkylsiloxane having a repeating unit represented by I (each R is independently a C1-6 alkyl group or a C6-12 aromatic hydrocarbon group; B is $-(CH_2)_x-$, wherein $x = 2-6$; $n = 0-200$; $m = 1-50$), and the charge generation substance contains a phthalocyanine pigment.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE .FORMAT

L67 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:804035 HCAPLUS Full-text
DOCUMENT NUMBER: 133:357221
TITLE: Electrophotographic photoreceptors and
electrophotographic apparatus
INVENTOR(S): Okura, Kenichi; Kitagawa, Seizo;
Takeuchi, Masaru
PATENT ASSIGNEE(S): Fuji Denki Kazo Device K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2000314969	A	20001114	JP 1999-125133	1999 0430
GB 2351354	A	20001227	GB 2000-8619	2000 0408
GB 2351354 DE 10020692	B A1	20030416 20001130	DE 2000-10020692	2000 0427
US 6485873	B1	20021126	US 2000-561598	2000 0427
PRIORITY APPLN. INFO.:			JP 1999-125133	A 1999 0430

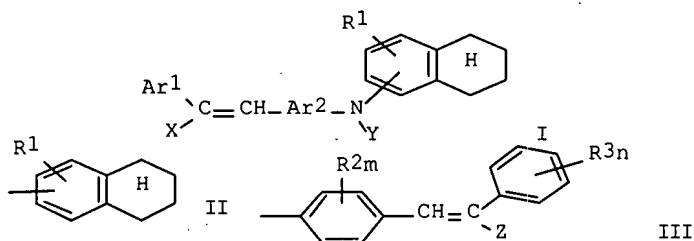
OTHER SOURCE(S): MARPAT 133:357221

AB The photoreceptors comprise a conductive substrate, an optional primer layer, and a monolayer photosensitive layer containing a resin binder, a charge generator, a **hole transporter**, an **electron transporter**, and a biphenyl derivative Preferable Markush structures for the biphenyls, **electron transporters**, **hole transporters**, and binders are also given. Electrophotog. apparatus which work by pos. charge process and comprising of the claimed photoreceptors is also claimed. Apparatus giving clear images even after repeated printing is obtained.

L67 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:772287 HCAPLUS Full-text
DOCUMENT NUMBER: 133:342455
TITLE: Electrophotographic photoconductors and
electrophotographic devices
INVENTOR(S): **Takeuchi, Masaru**; Ohkura, Kenichi;
Omokawa, Shinichi

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co. Ltd., Japan
 SOURCE: Ger. Offen., 62 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10020938	A1	20001102	DE 2000-10020938	2000 0428
JP 2000314970	A	20001114	JP 1999-125206	1999 0430
JP 3741346	B2	20060201		
US 6200717	B1	20010313	US 2000-558625	2000 0426
PRIORITY APPLN. INFO.:			JP 1999-125206	A 1999 0430
OTHER SOURCE(S):				
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AB Electrophotog. photoconductors which comprise a single-layer photosensitive film comprising a resin binder with charge-producing and **hole- and electron-transporting** materials which is laminated directly or over an intermediate layer on an elec. conductive substrate are described in which the **hole-transporting** material is described by the general formula I (Ar1 = an optionally substituted aryl group; Ar2 = an optionally substituted phenylene, naphthalene, biphenylene, or anthrylene group; R1 = H or a low mol. weight alkyl or alkoxy group; X = H or an optionally substituted alkyl or aryl group; Y = an optionally substituted aryl group, II, or III; R2 = H or a low mol. weight alkyl or alkoxy group; R3 = , a halogen H or a low mol. weight alkyl or alkoxy group; Z = H or an optionally substituted aryl group; m = 0-4; and n = 0-4). Preferably, the **electron-transporting** material is a diphenoquinone derivative. Electrophotog. devices using the photoconductors are also described.

L67 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:771974 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:39637
 TITLE: Direct comparison of **electron transfer** properties of two distinct

semisynthetic triads with non-protein based
 triad: unambiguous experimental evidences on
 protein matrix effects

AUTHOR(S): Hu, Yi-Zhen; Takashima, Hiroshi; Tsukiji,
 Shinya; **Shinkai, Seiji**; Nagamune,
 Teruyuki; Oishi, Shigero; Hamachi, Itaru

CORPORATE SOURCE: Department of Chemistry and Biochemistry,
 Graduate School of Engineering, Kyushu
 University, Fukuoka, 812-8581, Japan

SOURCE: Chemistry--A European Journal (2000
), 6(11), 1907-1916
 CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To understand the roles of protein matrix in **electron transfer** processes (ET) within
 biol. systems, a heme-based donor (Zn-heme: ZnPP)-sensitizer (Ru2+(bpy)3)-acceptor
 (cyclic viologen: BXV4+) triad 1 was used as a probe mol. Two semisynthetic systems,
 Cyt-b562(1) and Mb(1), in which the triad is incorporated into cytochrome b562 (Cyt-
 b562) or into myoglobin (Mb), were constructed by cofactor reconstitution. These two
 semisynthetic proteins were compared with the triad itself (i.e., without the protein
 matrix) using absorption spectroscopy, steady state emission and excitation studies,
 laser flash photolysis expts., and mol. modeling. Photoexcitation of the ZnPP moiety
 of Cyt-b562(1) or Mb(1) leads to a direct ET from the triplet state of ZnPP state
 (3ZnPP) to BXV4+ to generate a final charge-separated (CS) state, Cyt-b562(Zn+)-Ru2+-
 BXV3+· or Mb(Zn+)-Ru2+-BXV3+·. On the other hand, direct ET from the excited ZnPP
 moiety to the BXV4+ moiety is also involved in 1 in the absence of the protein matrix,
 but the excited state of ZnPP involved is not 3ZnPP, but the singlet excited state
 (1ZnPP) in this pathway. When the Ru2+(bpy)3 moiety of Cyt-b562(1) or Mb(1) is
 excited, a stepwise ET relay occurs with the ion-pair, Cyt-b562(Zn)-Ru3+-BXV3-· or
 Mb(Zn)-Ru3+-BXV3+·, as an intermediate, leading to the same final CS state as that
 generated in the direct ET pathway. The lifetimes of the corresponding final CS states
 were determined to be 300 ns for 1 in the absence of the protein matrix, 600-900 ns for
 Cyt-b562(1) and 1.1-18 µs for Mb(1), the values of which are greatly affected by the
 protein matrix. Mol. modeling study of the three systems consistently explained the
 differences of their photophys. behavior.

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L67 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:612050 HCAPLUS Full-text

DOCUMENT NUMBER: 133:215430

TITLE: Quinone derivatives and electrophotographic
 photoreceptor and electrophotographic
 apparatus using it

INVENTOR(S): **Takeuchi, Masaru**; Okura, Kenichi

PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

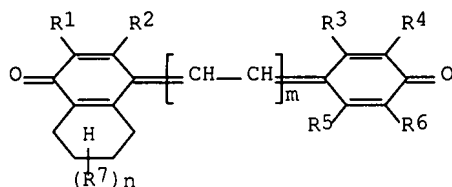
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000239215	A	20000905	JP 1999-40116	1999 0218

PRIORITY APPLN. INFO.: <--
 JP 1999-40116
 1999
 0218
 <--

OTHER SOURCE(S):
GI

MARPAT 133:215430



I

AB Claimed quinone derivs. have a general formula I [R1-6 = H, halo, halogenated alkyl, C1-6 alkyl, cyclic alkyl, aryl, heterocyclic group, aralkyl, C1-6 alkoxy, where 2 of substituents may connect and form cyclic alkylene or aromatic ring and C1-6 alkyl, cyclic alkyl, aryl, heterocyclic group, aralkyl, C1-6 alkoxy, cyclic alkylene, and aromatic ring may have substituent of halo, halogenated alkyl, C1-6 alkyl, C1-6 alkoxy, NO₂, and/or cyano; R7 = lower alkyl; m = 0, 1]. The electrophotog. photoreceptor containing the quinone derivs. in photosensitive layer or undercoat layer and the electrophotog. apparatus having the photoreceptor are also claimed. The quinone derivs. have high **electron- transporting** ability and compatibility with binders, and the photoreceptor has high durability even under repeated use.

L67 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:585601 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:185501
 TITLE: Electrophotographic photoreceptor with intermediate layer and manufacturing process thereof
 INVENTOR(S): Takeuchi, Masaru; Kawakami, Haruo; Okura, Kenichi; Kasahara, Masahiko
 PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000231213	A	20000822	JP 1999-33823	1999 0212
JP 3791227	B2	20060628	JP 1999-33823	1999 0212

AB The title photoreceptor comprises a conductive support laminated with a monolayer-type photosensitive layer containing a charge-generating agent, a pos. **hole- transporting** agent, an **electron- transporting** agent, and a binder resin through an intermediate layer containing a copolymer comprising vinyl chloride, ≤10 weight% vinyl acetate, and other monomer as resin components. The title process comprises the steps of forming the intermediate layer on a conductive support using a coating solution obtained by dissolving the copolymer in an ether-type or ketone-type solvent and then forming the photosensitive layer using a coating solution obtained by dissolving the above 3 agents and a binder resin in a halogenated hydrocarbon-type organic solvent. The

photosensitive layer shows high adhesion to the support, and hence the pos. charging monolayer-type photoreceptor exhibits improved durability in repeated use.

L67 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:776752 HCAPLUS Full-text

DOCUMENT NUMBER: 131:358858

TITLE: Characterization of photo leakage current of amorphous silicon thin-film transistors

AUTHOR(S): Yamaji, Yoshimi; Ikeda, Mitsushi;

Akiyama, Masahiko; Endo, Takahiko
CORPORATE SOURCE: Display Materials and Devices Laboratories,
Research and Development Center, Toshiba
Corporation, Yokohama, 235-0017, Japan

SOURCE: Japanese Journal of Applied Physics, Part 1:
Regular Papers, Short Notes & Review Papers (1999), 38(11), 6202-6206

CODEN: JAPNDE; ISSN: 0021-4922

PUBLISHER: Japanese Journal of Applied Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The photo-leakage current of amorphous silicon thin-film transistors (a-Si TFTs) for switching elements in active-matrix liquid crystal displays (AMLCDs) is studied to achieve high-image-quality LCDs. The position dependence of photo-leakage current generation in the a-Si:H TFT is evaluated using a slit light from the channel side. The generated photo-leakage current is composed of a peak at the junction region and a gradual part at channel region, both of which are larger at the source electrode side than at the drain electrode side. This large photo-leakage current at the source electrode side can be explained by the diffusion and tunnel current increase caused by the variation of the quasi-Fermi level by photogenerated carriers in the reverse bias source junction and the larger **electron mobility** than the **hole**, resp. The results of this study indicate the importance of the source junction for the TFT off-current, in contrast to studies in the past which put forth that the off-current is limited by the generation-recombination current at the drain junction. Our results indicate the importance of front-side illumination by the reflected-light illumination from the high brightness backlight of AMLCDs.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L67 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:42737 HCAPLUS Full-text

DOCUMENT NUMBER: 130:102861

TITLE: Electrophotographic photoconductor and electrophotographic apparatus using the same

INVENTOR(S): Ohkura, Kenichi; Takeuchi, Masaru

PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan

SOURCE: Ger. Offen., 18 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

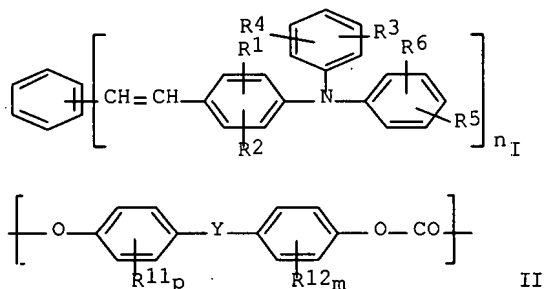
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19829055	A1	19990107	DE 1998-19829055	1998 0629
JP 11072934	A	19990316	JP 1998-182569	1998 0629
JP 3733749	B2	20060111		
PRIORITY APPLN. INFO.:			JP 1997-173459	A

1997
0630OTHER SOURCE(S): MARPAT 130:102861
GI

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AB The electrophotog. photoconductor comprises a conductive support, and on the substrate a photoconductor film comprised of a charge generation layer and a **charge transport** layer, wherein the **charge transport** layer contains a **charge transport** material I (R1-6 = C1-4-alkyl; n = 2-4) and at least 1 binder material II (Y = single bond, O, CO, S, SO2, CR21R22, C5-7 1,1-cycloalkylidene; R11, R12 = H, C1-6 alkyl, C6-12 aryl; m, p = 0-4; R21, R22 = H, C1-6 alkyl, C6-12 aryl). The conductor improves image quality and shows improved durability.

L67 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:561226 HCAPLUS Full-text

DOCUMENT NUMBER: 129:252448

TITLE: Electrophotographic photoreceptor containing orange-colored dye in **charge transporting** layer

INVENTOR(S): Takeuchi, Masaru; Ookura, Kenichi

PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10228121	A	19980825	JP 1997-30076	1997 0214
US 5952139	A	19990914	US 1998-24898	1998 0217
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PRIORITY APPLN. INFO.:			JP 1997-30076	A 1997 0214

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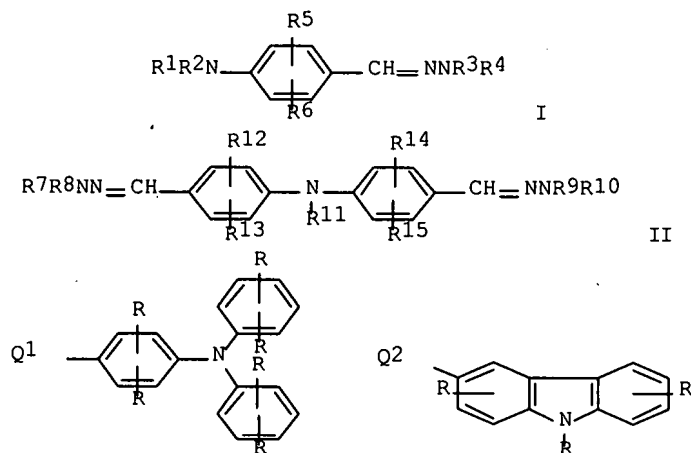
AB In the electrophotog. photoreceptor consisting of an electroconductive substrate, a **charge transporting** layer, and a charge generating layer, the **charge transporting** layer contains an orange-colored dye. The photoreceptor shows the high sensitivity and the low residual voltage, and little deterioration by light over the time.

L67 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:8802 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:134356
 TITLE: Electrophotographic photoreceptor using
 two-types of **charge-
 transporting agents**
 INVENTOR(S): **Takeuchi, Masaru**; Okura, Kenichi
 PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 09329904	A	19971222	JP 1996-149625	1996 0612

PRIORITY APPLN. INFO.: <--
 JP 1996-149625
 1996
 0612

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 GI



AB The title photoreceptor comprises a conductive substrate coated with a photosensitive layer containing, as **charge- transporting agents**, a hydrazone compound I or II and a styryl compound $R_{16}CH:CHArCH:CHR_{17}$ [R_{1-4} = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, benzyl; R_5, R_6, R_{12-15} = H, alkyl, alkoxy; R_7-11 = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, benzyl, thenyl; R_{16}, R_{17} = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, Q1, Q2; Ar = (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring; R = alkyl, alkoxy, amino, CN, NO₂, OH, halo]. The photoreceptor shows high photosensitivity, low residual potential, and good lightfastness.

L67 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:658795 HCAPLUS Full-text

DOCUMENT NUMBER: 127:324021

TITLE: Influence of anthracene doping on electrical and light-emitting behavior of 8-hydroxyquinoline-aluminum based electroluminescent devices

AUTHOR(S): Kinoshita, Osamu; Yamaguchi, Ryuichi; Masui, Masayoshi; **Takeuchi, Manabu**

CORPORATE SOURCE: Dep. Electrical Electronic Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Han'guk Pyomyon Konghak Hoechi (1996), 29(5), 449-453

CODEN: HPKHEL; ISSN: 1225-8024

PUBLISHER: Korean Institute of Surface Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To improve electroluminescence (EL) performance, anthracene was doped into the 8-hydroxyquinoline-aluminum (Alq3) light-emitting layer of organic double layered EL cells. The EL cells were fabricated on ITO glass substrates by vacuum deposition. Doping of anthracene in the light-emitting Alq3 layer was performed by coevapn. The doping concentration was changed from 5-30%. Anthracene doping of appropriate concentration increased the available c.d. and brightness of the EL cells. The green electroluminescence moved to slightly shorter wavelength. Carrier mobility of the Alq3 layer was measured by time of flight method, and was increased by anthracene doping. The influence of anthracene doping on the cell performance is discussed.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L67 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:201029 HCAPLUS Full-text

DOCUMENT NUMBER: 126:324078

TITLE: Influence of crystal structure on carrier transport in titanylphthalocyanine thin films

AUTHOR(S): Narushima, Kazuo; Kontani, Tomonori; Egerton, Raymond F.; Urao, Ryoichi; **Takeuchi, Manabu**

CORPORATE SOURCE: Department of Electrical and Electronic Engineering, Ibaraki University, 4-12-1 Nakanarusawa, Hitachi, 316, Japan

SOURCE: Applied Surface Science (1997), 113/114, 326-330

CODEN: ASUSEE; ISSN: 0169-4332

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Titanylphthalocyanine thin films were prepared by vacuum deposition at various substrate temps., and influence of crystallinity of the films on the carrier mobility was studied. The film crystallinity was evaluated by x-ray diffraction, TEM, SEM and STM observations. The carrier mobility perpendicular to the film plane was determined by the time-of-flight method. Polycryst. and amorphous films were obtained at the substrate temps. of above 20 and below 0°, resp. Crystallinity of the thin films increased with increasing substrate temperature. Carrier mobility of the thin films increased with increasing substrate temperature, which is explained by an increase in crystallinity.

L67 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:956775 HCAPLUS Full-text

DOCUMENT NUMBER: 124:42215

TITLE: New transparent conductive oxides with YbFe2O4 structure

AUTHOR(S): Orita, Masahiro; **Takeuchi, Megumi**; Sakai, Hiroyuki; Tanji, Hiroaki

CORPORATE SOURCE: R&D Center, HOYA Corp., Tokyo, 196, Japan

SOURCE: Japanese Journal of Applied Physics, Part 2:

Letters (1995), 34(11B), L1550-L1552

CODEN: JAPL D8; ISSN: 0021-4922

PUBLISHER:

Japanese Journal of Applied Physics

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB InGaMgO₄ and InGaZnO₄ crystals with the YbFe₂O₄ layered structure are transparent conductive oxides. The band gaps of these crystals were wider than that of In₂O₃. Conductivity was induced by doping with electrons through introduction of O vacancies. Mobility, carrier d. and conductivity of sintered bodies of InGaMgO₄ were 2 cm²/V·s, 1 + 1018/cm³ and 0.5 S/cm, resp. Those of InGaZnO₄ were 20 cm²/V·s, 4 + 1019/cm³ and 120 S/cm. A promising method to improve the conductivity to a value sufficient for practical use is discussed.

L67 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:445983 HCAPLUS Full-text

DOCUMENT NUMBER: 121:45983

TITLE: Organic thin film electroluminescent devices

AUTHOR(S): Minsik, Bae; Sato, Masaki; Wada, Tatsuaki; Takeuchi, Manabu

CORPORATE SOURCE: Dep. Electr. Electron. Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Int. Conf. Process. Mater. Prop., 1st (1993), 1109-12. Editor(s): Henein, Hani; Oki, Takeo. Miner. Met. Mater. Soc: Warrendale, Pa.
CODEN: 59TDAS

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Organic electroluminescent (EL) cells consisting of a light-emitting layer and a **hole transport** layer were prepared by vacuum evaporation, and their elec. and light-emitting behavior was examined 8-Hydroxyquinoline aluminum (Alq₃) and triphenyldiamine derivative (TPD) were used as the light-emitting and the **hole transport** layers, resp. Effects of doping of several organic materials into the light-emitting layer were studied. It was confirmed that anthracene doping increased the available c.d. of the EL cells and EL efficiency, which caused an increase in EL brightness. While 1,10-phenanthroline and 9-methylanthracene doping increased the available c.d. but decreased EL efficiency. Doping of benzanthrone, benz-a-anthracene and naphthacene decreased both the available c.d. and EL efficiency.

L67 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:72241 HCAPLUS Full-text

DOCUMENT NUMBER: 116:72241

TITLE: Electrophotographic photoreceptor containing thioether **charge-transporting** agent

INVENTOR(S): Ono, Hitoshi; Takeuchi, Masako

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 03116152	A	19910517	JP 1989-254528	

1989

0929

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PRIORITY APPLN. INFO.:

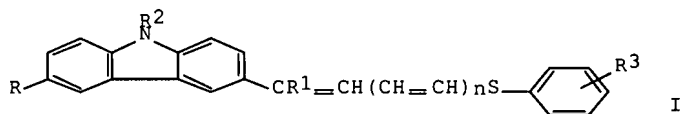
JP 1989-254528

1989

0929

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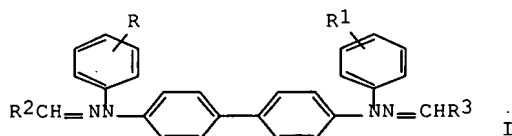
AB E1005. The photoreceptor consists of an elec. conductive support coated with photosensitive layer containing a thioether [I; R = H, halo; R1, R2 = H, lower alkyl, aralkyl, (substituted) Ph; R3 = H, lower alkyl, halo, NO2; n = 0, 1]. A photoreceptor containing a diazo pigment charge-generating agent and **charge-transporting agent I** (R = R1 = R3 = H; R2 = Et, n = 0) showed high sensitivity.

L67 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:666818 HCAPLUS Full-text
 DOCUMENT NUMBER: 115:266818
 TITLE: Electrophotographic photoreceptors using bishydrazone **charge-transporting agent**
 INVENTOR(S): Ono, Hitoshi; **Takeuchi, Masako**
 PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03119361	A	19910521	JP 1989-258167	1989 1003
JP 2830178	B2	19981202	JP 1989-258167	1989 1003

PRIORITY APPLN. INFO.: <--

GI



AB The photoreceptors comprise an elec. conductive support with a coating of a photosensitive layer containing a bishydrazone derivative I [R, R1 = H, lower alkyl, alkoxy; R2, R3 = (substituted) aryl, (substituted) heterocyclic residue]. The photoreceptors show increased photosensitivity and improved durability in repeated use.

Thus, an Al-deposited polyester film support was coated with a charge-generating layer containing a disazo pigment and overcoated with a **charge-transporting** layer containing I (R, R1 = H; R2, R3 = p-C6H4OCH2C6H4) to give a photoreceptor.

L67 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:461856 HCAPLUS Full-text

DOCUMENT NUMBER: 115:61856

TITLE: Formation of ion pairs and carrier transport in undoped and dye-doped poly(N-vinylcarbazole) films

AUTHOR(S): Ikeda, Mitsusuke

CORPORATE SOURCE: Cent. Res. Lab., Matsushita Electr. Ind. Co., Ltd., Moriguchi, 570, Japan

SOURCE: Journal of the Physical Society of Japan (1991), 60(6), 2031-9

CODEN: JUPSAU; ISSN: 0031-9015

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Dark conductivities σ_d of undoped and dye-doped poly(N-vinylcarbazole) (PVK) films were measured at 298, 276, and 208 K over a wide range of static elec. field $E = 10^4$ - 10^6 V/cm. The field dependence of σ_d follows apparently the $E^{0.6}$ -power law, rather than the $E^{1/2}$ -power law of the well-known Poole-Frenkel (PF) type expression. Based on these exptl. results, the field-induced carrier generation processes are discussed in terms of "ion pairs" (bound hole-charged acceptors) that are formed by an **electron transfer** between carbazole-rings and acceptors. The Onsager "dissociation-association" model was used to account for the elec. field dependence of σ_d , in which the dissociation of the ion pairs is enhanced by an applied field.

L67 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:33131 HCAPLUS Full-text

DOCUMENT NUMBER: 114:33131

TITLE: Electrophotographic photoreceptors with **charge-transporting** layer using polygermane

INVENTOR(S): Takeuchi, Masaru; Nagashima, Tomomichi; Yamaoki, Toshihiko; Minami, Koji

PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02165158	A	19900626	JP 1988-321061	1988 1220

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PRIORITY APPLN. INFO.: JP 1988-321061

1988

1220

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AB The photoreceptors comprise a charge-generating layer and a **charge-transporting** layer formed from polygermanes. The photoreceptors show good elec. properties without using binders in the **charge-transporting** layer. Thus, a conductive support with a charge-generating layer was coated with a toluene solution of a polygermane prepared by the polycondensation of triethylchlorogermane with hexamethylphosphoric triamide to give a photoreceptor.

L67 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:581428 HCAPLUS Full-text
 DOCUMENT NUMBER: 113:181428
 TITLE: Photoconductive support for
 electrostatographic latent image
 INVENTOR(S): Nagashima, Tomomichi; Minami, Koji;
Takeuchi, Masaru; Yamaoki, Toshihiko
 PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02135363	A	19900524	JP 1988-290401	1988 1116
			<--	
PRIORITY APPLN. INFO.:			JP 1988-290401	1988 1116

AB The title support, on a substrate with an elec. conductive surface, has a charge-generating layer containing a polysilane and amorphous Si fine particle, which is covered with a **charge -transporting** layer. Thus, a dispersion containing poly[phenyl(propyl)dichlorosilane] and powdered amorphous Si was applied onto an elec. conductive surface of a substrate and coated with a solution of poly[methyl(phenyl)dichlorosilane] to give the title support showing high charge-generating property and **charge-transporting** property.

L67 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:94023 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:94023
 TITLE: A chloride-translocating adenosine triphosphatase in Acetabularia acetabulum. 2. Reconstitution of the enzyme into liposomes and effect of net charges of liposomes on chloride permeability and reconstitution
 AUTHOR(S): **Ikeda, Mikiko**; Oesterhelt, Dieter
 CORPORATE SOURCE: Fac. Pharm. Sci., Okayama Univ., Okayama, 700, Japan
 SOURCE: Biochemistry (1990), 29(8), 2065-70
 CODEN: BICHAW; ISSN: 0006-2960
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The Mono Q-III fraction, a Mg²⁺-ATPase, isolated from A. acetabulum was reconstituted into liposomes of various net charges prepared by the reversed-phase method and tested for a Cl⁻-translocating activity. The liposomes from a mixture of egg lecithin, dicetyl phosphate, and cholesterol (63:18:9 mol ratio, neg. liposomes) and from a mixture of egg lecithin and cholesterol (63:9 mol ratio, neutral liposomes) were less leaky than pos. liposomes from asolectin, and from a mixture of egg lecithin, stearylamine, and cholesterol (63:18:9 mol ratio). A significant increase in 36Cl⁻ efflux from the neg. and neutral liposomes was observed by addition of ATP in the presence of valinomycin after incorporation of the enzyme by short-term dialysis. The ATP-driven 36Cl⁻ efflux was inhibited by addition of N3⁻, an inhibitor of the ATPase. The preincubation of the enzyme with phenylglyoxal, an arginine-modifying reagent, inactivated ATP-mediated 36Cl⁻ efflux, but the ATPase activity of the preparation was not affected. When Cl⁻ was replaced by 35SO₄²⁻, no ATP-dependent 35SO₄²⁻ efflux was detectable from the proteoliposomes. Proton-translocating activity of the enzyme was also tested, and no fluorescent quenching of 9-amino-6-chloro-2-methoxyacridine was observed

L67 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:46493 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:46493
 TITLE: Selenium and zinc doping in gallium indium phosphide (Ga_{0.5}In_{0.5}P) and aluminum gallium indium phosphide ((Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P) grown by metalorganic chemical vapor deposition
 AUTHOR(S): Ikeda, M.; Kaneko, K.
 CORPORATE SOURCE: Res. Cent., Sony Corp., Yokohama, 240, Japan
 SOURCE: Journal of Applied Physics (1989), 66(11), 5285-9
 CODEN: JAPIAU; ISSN: 0021-8979
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Elec. properties of Se- and Zn-doped Ga_{0.5}In_{0.5}P and (Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P grown by atmospheric-pressure metalorg. chemical vapor deposition under a wide range of growth conditions were investigated using van der Pauw-Hall measurements at room temperature. The dopants were hydrogen selenide and dimethylzinc. The samples were prepared so that parasitic conduction in the GaAs substrate just adjacent to the ternary or quaternary layers could be eliminated from the Hall measurement. The carrier concentration of <GaIn>P and <AlGaIn>P increased as the 0.8 ± 0.1 th power of the feed amount of dopants for both conductivity types. At at growth temperature of .apprx.680°, the hole concentration tended to saturate near the 10¹⁸ cm⁻³ level as the amount of dimethylzinc being fed increased. The carrier concentration decreased with increasing growth temperature, with apparent activation energies of 0.95 eV for Se doping with 1.9 eV for Zn doping. The Group-V to Group-III feed ratio had a weak influence on the carrier concentration. On the other hand, the Hall mobility of the layers grown under the various growth conditions remained almost constant: the **electron mobilities** of Se-Ga_{0.5}In_{0.5}P and Se-(Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P within the carrier concentration range of $10^{17} < n < 10^{18}$ cm⁻³ were 950-700 and .apprx.100 cm²/V-s, resp. The **hole mobilities** of Zn-Ga_{0.5}In_{0.5}P and Zn-(Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P within the carrier concentration range of $10^{17} < p < 10^{18}$ cm⁻³ were .apprx.34 and .apprx.16 cm²/V-s, resp.

L67 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:109254 HCAPLUS Full-text
 DOCUMENT NUMBER: 110:109254
 TITLE: Structure and organization of Marchantia polymorpha chloroplast genome. I. Cloning and gene identification
 AUTHOR(S): Ohyama, Kanji; Fukuzawa, Hideya; Kohchi, Takayuki; Sano, Toru; Sano, Satoshi; Shirai, Hiromasa; Umesono, Kazuhiko; Shiki, Yasuhiko; Takeuchi, Masayuki; et al.
 CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606, Japan
 SOURCE: Journal of Molecular Biology (1988), 203(2), 281-98
 CODEN: JMOBAK; ISSN: 0022-2836
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The complete nucleotide sequence of chloroplast DNA from a liverwort, *M. polymorpha*, was determined using a clone bank of chloroplast DNA fragments. The circular genome consists of 121,024 base-pairs and includes two large inverted repeats (IRA and IRB, each 10,058 base-pairs), a large single-copy region (LSC, 81,095 base-pairs), and a small single-copy region (SSC, 19,813 base-pairs). The nucleotide sequence was analyzed with a computer to deduce the entire gene organization, assuming the universal genetic code and the presence of introns in the coding sequences. It detected 136 possible genes, 103 gene products of which are related to known stable RNA or protein mols. Stable RNA genes for four species of rRNA and 32 species of tRNA were located, although one of the tRNA genes may be defective. Twenty genes encoding polypeptides involved in photosynthesis and **electron transport** were identified by comparison with known chloroplast genes. Twenty-five open reading frames (ORFs) show structural similarities to *Escherichia coli* RNA polymerase subunits, 19 ribosomal proteins and two related proteins. Seven ORFs are comparable with human mitochondrial NADH dehydrogenase genes. A computer-aided homol. search predicted possible chloroplast homolog of bacterial proteins; two ORFs for bacterial 4Fe-4S-type ferredoxin, two for

distinct subunits of a protein-dependent transport system, one ORF for a component of nitrogenase, and one for an antenna protein of a light-harvesting complex. The other 33 ORFs, consisting of 29 to 2136 codons, remain to be identified, but some of them seem to be conserved in evolution. There may be 22 introns in 20 genes (8 tRNA genes and 12 ORFs), which may be classified into the groups I and II found in fungal mitochondrial genes. The structural gene for ribosomal protein S12 is trans-split on the opposite DNA strand. The universal genetic code was confirmed by the substitution pattern of simultaneous codons, and by possible codon recognition of the chloroplast-encoded tRNA mols., assuming no importation of tRNA mols. from the cytoplasm. The nucleotide residue A or T is preferred at the third position of the codons (G + C, 11.9%) and in intergenic spacers (G + C, 19.5%), resulting in an overall G + C content that is low (28.8%) throughout the liverwort chloroplast genome. Possible gene expression signals such as promoters and terminators for transcription, predicted locations of gene products, and DNA replicative origins are discussed.

L67 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:57355 HCAPLUS Full-text

DOCUMENT NUMBER: 108:57355

TITLE: Thermocontrol of **electron transport** through ternary composite membranes composed of polymer/liquid crystal/electron carriers

AUTHOR(S): **Shinkai, Seiji**; Shimamoto, Katsuhiko; Nakamura, Shinichiro; Namabe, Osamu; Kajiyama, Tisato

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852, Japan

SOURCE: Journal of Polymer Science, Part C: Polymer Letters (1987), 25(12), 495-501
CODEN: JSCLE2; ISSN: 0887-6258

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The title composite membranes were prepared using polycarbonate and Pelprene as the matrix polymer, vitamin K, and hydrophobic viologen (2C16ClV2+) as electron carriers (EC), and 4-cyano-4'-pentylbiphenyl (I) liquid crystal. Polymer/di-Bu phthalate/EC membranes which had no phase transition at the exptl. range were used as reference membranes. The rate of **electron transport** across the polymer/I/EC membranes changed distinctly at the crystal-liquid phase transition temperature of I, and that the rate of **electron transport** could be controlled by an on-off-type temperature switch.

L67 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:562011 HCAPLUS Full-text

DOCUMENT NUMBER: 101:162011

TITLE: Photoconductivity and mechanochemical effects in semiconductor powders

AUTHOR(S): **Takeuchi, Manabu**

CORPORATE SOURCE: Fac. Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Oyo Butsuri (1984), 53(9), 809-14

CODEN: OYBSA9; ISSN: 0369-8009

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The photocond., elec. conductivity phase transition, color change, O adsorption and surface structure of semiconductor powders of CdS ZnTe, and TiO2 during crushing and milling were studied.

L67 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:218560 HCAPLUS Full-text

DOCUMENT NUMBER: 96:218560

TITLE: Electrical conduction of organic polymers in the molten state

AUTHOR(S): **Takeuchi, Manabu**; Kaneko, Fujio; Nagasaka, Hideo; Kato, Itsuo

CORPORATE SOURCE: Fac. Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Ibaraki Daigaku Kogakubu Kenkyu Shuho (

1981), 29, 111-14
CODEN: IDKSAB; ISSN: 0367-7389

DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Some organic polymers consist of crystalline and amorphous parts randomly distributed. Based on the fact that the whole structure becomes noncryst. at temps. above the m.p., an attempt was made to obtain information about the elec. conduction mechanism in the amorphous part by investigating the elec. properties of molten polymers. The elec. current depended not only on the temperature but also on the intensity as well as residence time of the applied field. These data, in combination with the dielec. permittivity data measured as a function of frequency, indicated that the elec. conduction at high temps. comes mainly from **electron transport**, while at low temps., ions and dipoles tend to contribute in an additive fashion.

L67 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:582302 HCAPLUS Full-text

DOCUMENT NUMBER: 95:182302

TITLE: Photo-controlled membrane transport

AUTHOR(S): Shinkai, Seiji

CORPORATE SOURCE: Coll. Eng., Nagasaki Univ., Nagasaki, Japan

SOURCE: Gendai Kagaku (1981), 126, 22-30

CODEN: GNKGAN; ISSN: 0386-961X

DOCUMENT TYPE: Journal; **General Review**

LANGUAGE: Japanese

AB A review with no refs. on involvement of light energy in regulation of membrane ion transport.

STRUCTURE SEARCH

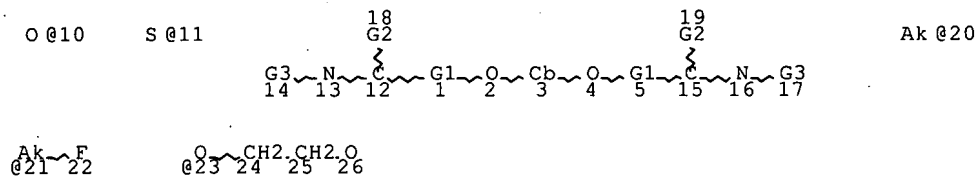
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(FILE 'HCAPLUS' ENTERED AT 16:19:46 ON 29 MAY 2007)

L47 6 S L43

=> d que stat 147

L4 STR



VAR G1=C/N/O

VAR G2=10/11

VAR G3=20/21/23

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 10

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DEFAULT MLEVEL IS ATOM

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DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M10 C AT 3

ECOUNT IS M3-X18 C AT 20

ECOUNT IS M3-X18 C AT 21

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L25 QUE ABB=ON PLU=ON 8481.2/RID

L26 QUE ABB=ON PLU=ON 5253.7/RID

L27 QUE ABB=ON PLU=ON 2508.17/RID

L29 QUE ABB=ON PLU=ON 2404.11/RID

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L35 QUE ABB=ON PLU=ON 3593.5/RID

L37 QUE ABB=ON PLU=ON 9418.2/RID

L39 QUE ABB=ON PLU=ON 13685.1/RID

L40 QUE ABB=ON PLU=ON 14022.1/RID

 L41 318451 SEA FILE=REGISTRY ABB=ON PLU=ON (L25 OR L26 OR L27)
 OR L29 OR L31 OR L33 OR L35 OR L37 OR (L39 OR L40)

L43 17 SEA FILE=REGISTRY SUB=L41 SSS FUL L4

L47 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L43

STRUCTURE SEARCH RESULTS

=> d 147 1-6 ibib abs hitstr hitind

L47 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2007:3153 HCAPLUS Full-text
 DOCUMENT NUMBER: 146:287106
 TITLE: Sensitive fluorescent sensors for malate based
 on calix[4]arene bearing anthracene
 AUTHOR(S): Qing, Guang-Yan; He, Yong-Bing; Chen,
 Zhi-Hong; Wu, Xiao-Jun; Meng, Ling-Zhi
 CORPORATE SOURCE: Department of Chemistry, Wuhan University,
 Wuhan, 430072, Peop. Rep. China
 SOURCE: Tetrahedron: Asymmetry (2006), 17(22),
 3144-3151
 CODEN: TASYE3; ISSN: 0957-4166
 PUBLISHER: Elsevier Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 146:287106
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

AB Two chiral fluorescence receptors I (R = Me, PhCH₂) based on calix[4]arenes were synthesized, and their chiral recognition properties for enantiomeric malate were studied by fluorescence and ¹H NMR spectra in CHCl₃. The addition of either L- or D-malate caused obvious fluorescence quenching of the host solution. Different fluorescent responses demonstrate that the two receptors have good enantioselective recognition abilities towards malate.

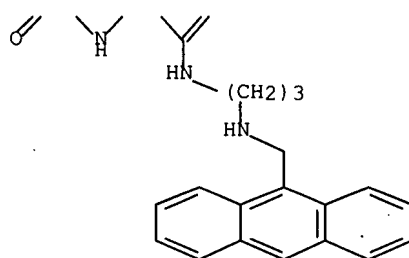
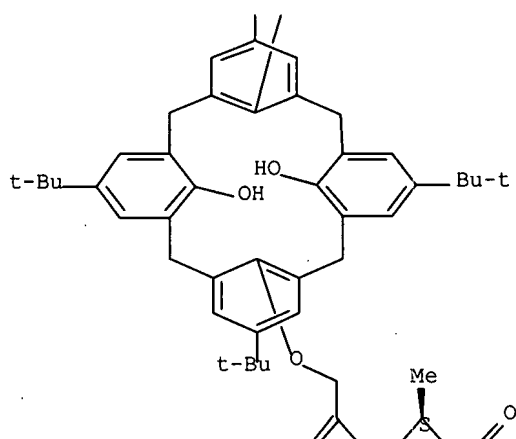
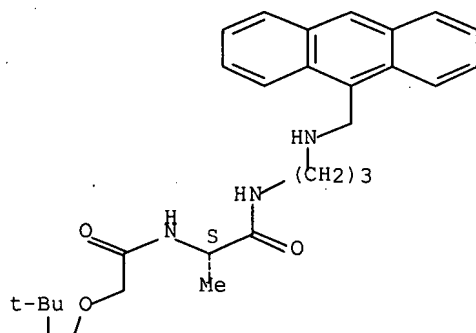
IT 927422-15-9P 927422-16-0P

RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (sensitive fluorescent sensors for malate enantiomer based on calix[4]arene bearing anthracene)

RN 927422-15-9 HCAPLUS

CN Propanamide, 2,2'-[[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-dihydroxypentacyclo[19.3.1.13,7.19,13.115,19]octacosal-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino]]bis[N-[3-[(9-anthracenylmethyl)amino]propyl]-, (2S,2'S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

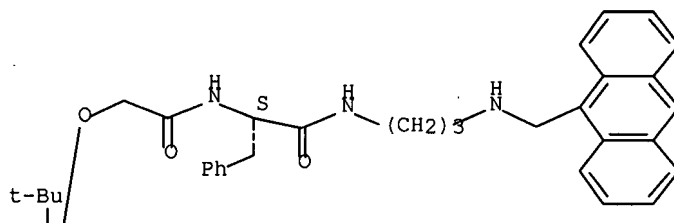


10/538484

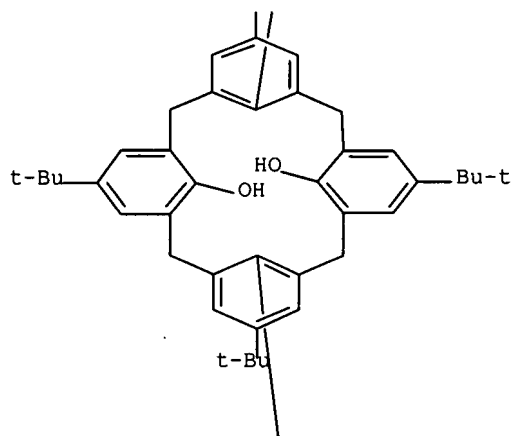
dimethylethyl)-26,28-dihydroxypentacyclo[19.3.1.13,7.19,13.115,19]
octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-
25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino]]bis[N-[3-[(9-
anthracenylmethyl)amino]propyl]-, (α S, α' S)- (CA INDEX
NAME)

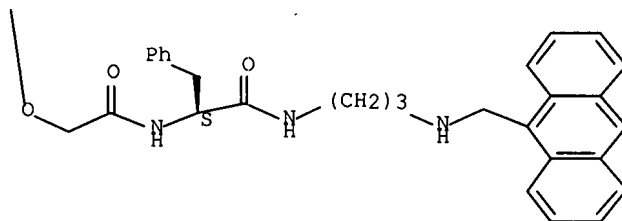
Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A





CC 80-2 (Organic Analytical Chemistry)

IT 927422-15-9P 927422-16-0P

RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses) (sensitive fluorescent sensors for malate enantiomer based on calix[4]arene bearing anthracene)

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:547390 HCAPLUS Full-text

DOCUMENT NUMBER: 146:90665

TITLE: Synthesis of triphenylene discotic liquid crystals substituted with ester or amide functional groups and the effect of hydrogen bonding on mesogenic behaviors

AUTHOR(S): Zhao, Ke-Qing; Gao, Cai-Yan; Hu, Ping; Wang, Bi-Qin; Li, Quan

CORPORATE SOURCE: College of Chemistry and Material Science, Sichuan Normal University, Chengdu, 610066, Peop. Rep. China

SOURCE: Huaxue Xuebao (2006), 64(10), 1051-1062
CODEN: HHHPA4; ISSN: 0567-7351

PUBLISHER: Huaxue Xuebao Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Three series with total number of twenty-four new compds. which are sym. and asym. triphenylene discotic liquid crystals with two different kinds of peripheral chains, C₁₈H₆(OR)₃(OCH₂COOEt)₃, C₁₈H₆(OR)₃(OCH₂COOBu)₃ and C₁₈H₆(OR)₃(OCH₂CONHBu)₃, (R = C₅H₁₁, C₆H₁₃, C₇H₁₅, C₈H₁₇) were synthesized. The purification was carried out with column chromatog. and structure characterization of these compds. was carried out with ¹H NMR, IR and elemental anal. The thermal gravimetry anal. results showed that all these compds. have good thermal stability up to 300°. Their thermotropic liquid crystal properties were studied with polarizing optical microscopy and DSC. For compds. C₁₈H₆(OR)₃(OCH₂COOEt)₃, the asym. compds. have lower melting and higher clearing points than that of their corresponding sym. compds., thus asym. compds. have wider mesophase temperature ranges. For the triphenylene derivs. containing amide group with structure of C₁₈H₆(OR)₃(OCH₂CONHBu)₃, the sym. compds. exhibit higher clearing points and more ordered hexagonal columnar mesophase than their corresponding asym. ones. For comparison of sym. and asym. compds. C₁₈H₆(OR)₃(OCH₂CONHBu)₃ and C₁₈H₆(OR)₃(OCH₂COOBu)₃, the formers have not only higher melting and clearing points but also richer columnar phases than the latter ones due to intermol. H bonding.

IT 917394-85-5P 917394-86-6P 917394-87-7P

917394-88-8P 917394-89-9P 917394-90-2P

917394-91-3P 917394-92-4P

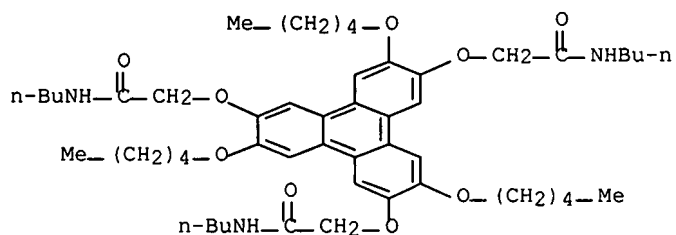
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and liquid crystal properties of)

RN 917394-85-5 HCAPLUS

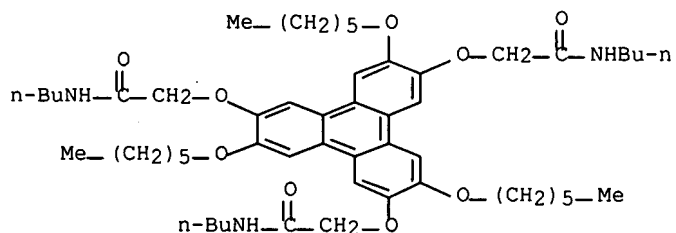
CN Acetamide, 2,2',2''-[{3,7,11-tris(pentyloxy)-2,6,10-

triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



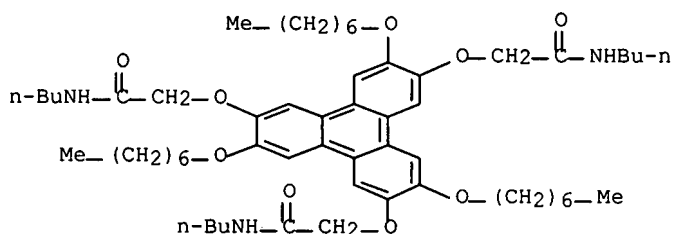
RN 917394-86-6 HCAPLUS

CN Acetamide, 2,2',2''-[3,7,11-tris(hexyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



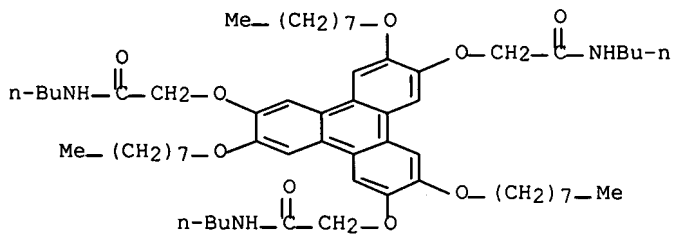
RN 917394-87-7 HCAPLUS

CN Acetamide, 2,2',2''-[3,7,11-tris(heptyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)

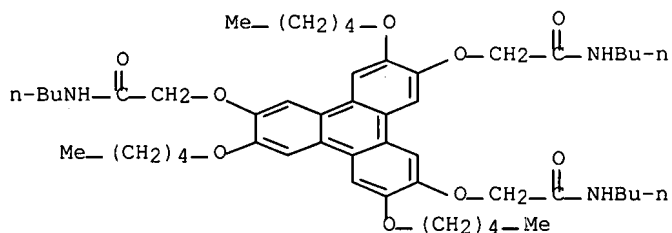


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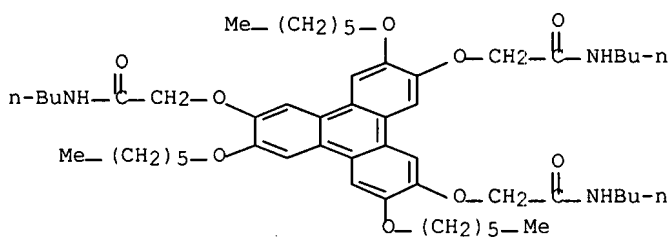
CN Acetamide, 2,2',2''-[3,7,11-tris(octyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



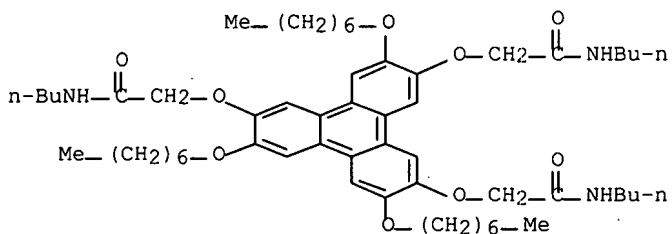
RN 917394-89-9 HCAPLUS
 CN Acetamide, 2,2',2''-[[3,7,10-tris(pentyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



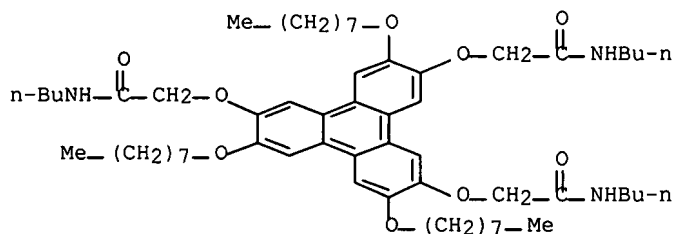
RN 917394-90-2 HCAPLUS
 CN Acetamide, 2,2',2''-[[3,7,10-tris(hexyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



RN 917394-91-3 HCAPLUS
 CN Acetamide, 2,2',2''-[[3,7,10-tris(heptyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



RN 917394-92-4 HCAPLUS
 CN Acetamide, 2,2',2''-[[3,7,10-tris(octyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)

Section cross-reference(s): 22, 25

IT 917394-77-5P 917394-78-6P 917394-79-7P 917394-80-0P
 917394-81-1P 917394-82-2P 917394-83-3P 917394-84-4P
 917394-85-5P 917394-86-6P 917394-87-7P
 917394-88-8P 917394-89-9P 917394-90-2P
 917394-91-3P 917394-92-4P 917394-93-5P
 917394-94-6P 917394-95-7P 917394-96-8P 917394-97-9P
 917394-98-0P 917394-99-1P 917395-00-7P

RL: PEP (Physical, engineering or chemical process); PRP
 (Properties); SPN (Synthetic preparation); PREP (Preparation);
 PROC (Process)

(preparation and liquid crystal properties of)

L47 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:565189 HCAPLUS Full-text

DOCUMENT NUMBER: 141:106275

TITLE: Preparation of fused aromatic compounds having
 charge transport properties

INVENTOR(S): Takeuchi, Masayuki; Ikeda, Masato; Shinkai,
 Seiji

PATENT ASSIGNEE(S): Kyushu Tlo Company, Limited, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058684	A1	20040715	WO 2003-JP15826	2003 1211

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 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
 RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
 CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
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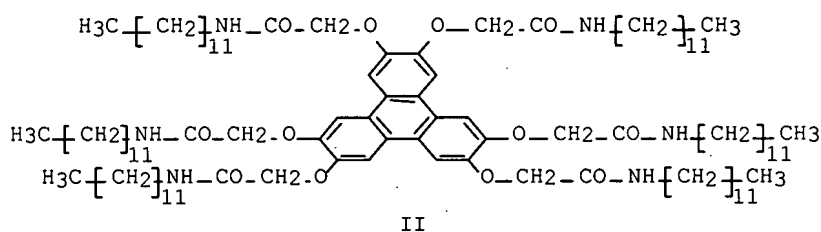
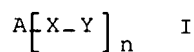
US 2006111587	A1	20060525	US 2005-538484	2005 0608
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PRIORITY APPLN. INFO.:

JP 2002-360369

A

OTHER SOURCE(S): MARPAT 141:106275
GI



AB Title compds. I [A = fused aromatic hydrocarbon, e.g., triphenylene, etc.; X = hydrogen bonding moiety, e.g., amide etc.; Y = chain group, e.g., alkyl, etc.; n = 2-10] were prepared In charge transport measurement, μ (hole mobility) of compound II was 0.021 cm²V⁻¹s⁻¹. Of note, compds. I are useful as charge transport materials.

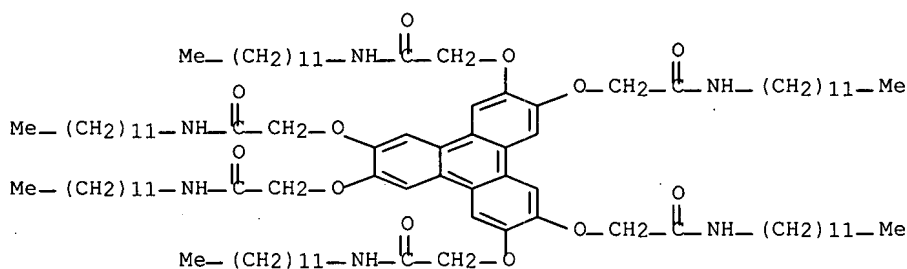
IT 614733-37-8P 721396-37-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)

(preparation of fused aromatic compds. having charge transport properties)

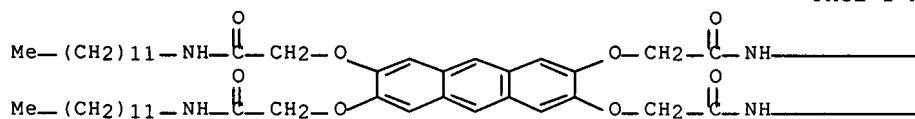
RN 614733-37-8 HCAPLUS

CN Acetamide, 2,2',2'',2''',2''',2''''-[2,3,6,7,10,11-triphenylenehexaylhexas(oxy)]hexakis[N-dodecyl- (9CI) (CA INDEX NAME)



RN 721396-37-8 HCAPLUS

CN Acetamide, 2,2',2'',2''',2''',2''''-[2,3,6,7-anthracenetetrayltetrakis(oxy)]tetrakis[N-dodecyl- (9CI) (CA INDEX NAME)



— (CH₂)₁₁—Me

— (CH₂)₁₁—Me

IC ICM C07C235-20
ICS C09K011-06
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74, 76
IT **614733-37-8P** 721396-35-6P 721396-36-7P
721396-37-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of fused aromatic compds. having charge transport properties)

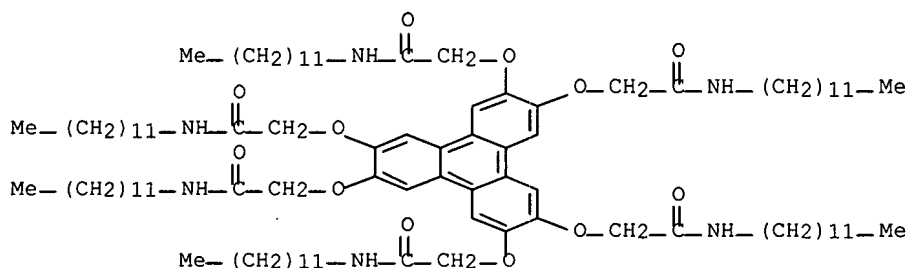
L47 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:415872 HCAPLUS Full-text
DOCUMENT NUMBER: 139:329698
TITLE: Unusual emission properties of a triphenylene-based organogel system
AUTHOR(S): Ikeda, Masato; Takeuchi, Masayuki; Shinkai, Seiji
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2003), (12), 1354-1355
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The title compound forms organogels in appropriate organic solvents and the resultant gel phase exhibits unusual emission properties arising from the excimer formation.

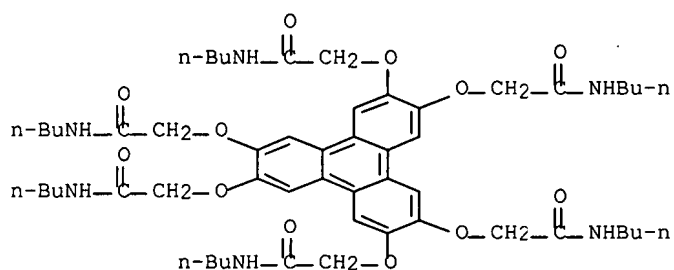
IT **614733-37-8P 614733-38-9P**
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(unusual emission properties of a triphenylene-based organogel system)

RN 614733-37-8 HCAPLUS

CN Acetamide, 2,2',2'',2''',2''''',2''''''-[2,3,6,7,10,11-triphenylenehexaylhexas(oxy)]hexakis[N-dodecyl- (9CI) (CA INDEX NAME)



RN 614733-38-9 HCAPLUS
 CN Acetamide, 2,2',2'',2''',2''''',2''''''-[2,3,6,7,10,11-triphenylenehexaylhexakis(oxy)]hexakis[N-butyl- (9CI) (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22
 IT 614733-37-8P 614733-38-9P
 RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
 (unusual emission properties of a triphenylene-based organogel system)
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:384753 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:98712

TITLE: Monolayer of a Na⁺-Selective Fluoroionophore on Glass: Connecting the Fields of Monolayers and Optical Detection of Metal Ions
 AUTHOR(S): van der Veen, Niels J.; Flink, Simon; Deij, Menno A.; Egberink, Richard J. M.; van Veggel, Frank C. J. M.; Reinhoudt, David N.
 CORPORATE SOURCE: Department of Supramolecular Chemistry and Technology, University of Twente, Enschede, 7500 AE, Neth.
 SOURCE: Journal of the American Chemical Society (2000), 122(25), 6112-6113
 CODEN: JACSAT; ISSN: 0002-7863
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB In this contribution, the authors describe a monolayer of Na⁺-selective fluorescent receptor on glass, prepared by covalent coupling of the bis-isocyanate derivative of the receptor to a self-assembled monolayer (SAM) of 3-aminopropyltriethoxysilane

(APTES). This is the 1st example of a monolayer of a selective receptor for detection of metal ions by fluorescence. The optical response of the monolayer to Na⁺ ions is compared to that another fluoroionophore in solution

IT 281660-00-2P 281660-01-3P

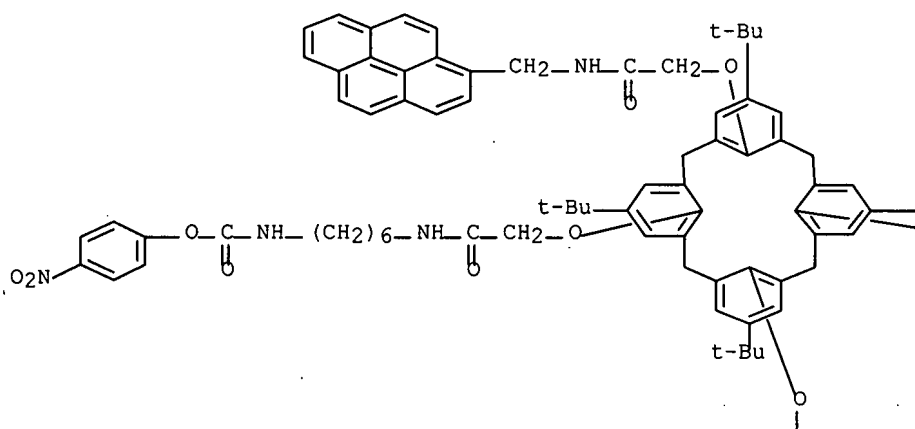
RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(monolayer of a Na⁺-selective fluoroionophore on glass: connecting the fields of monolayers and optical detection of metal ions)

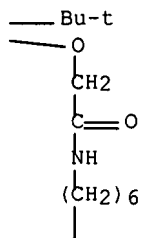
RN 281660-00-2 HCAPLUS

CN Carbamic acid, [[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-bis[2-oxo-2-[(1-pyrenylmethyl)amino]ethoxy]pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino-6,1-hexanediyl]]bis-, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

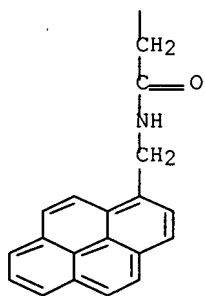
PAGE 1-A



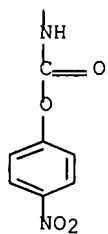
PAGE 1-B



PAGE 2-A

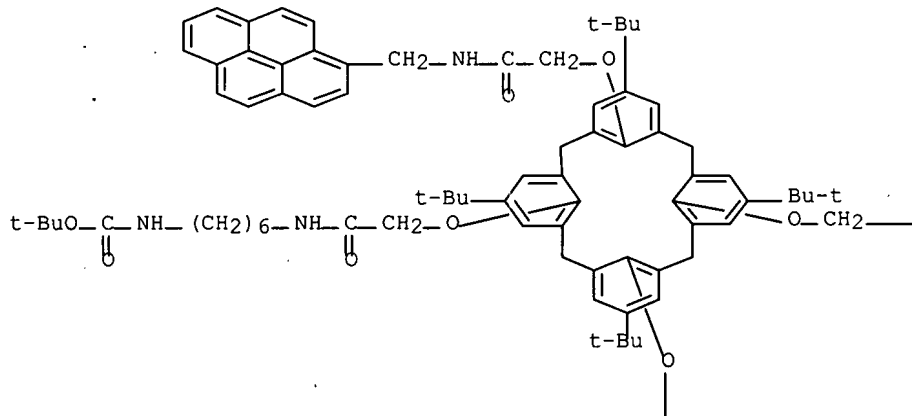


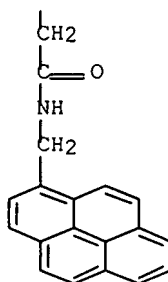
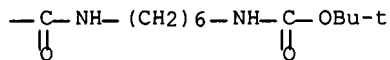
PAGE 2-B



RN 281660-01-3 HCAPLUS
 CN Carbamic acid, [[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-bis[2-oxo-2-[(1-pyrenylmethyl)amino]ethoxy]pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino-6,1-hexanediyl]]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A





CC 79-3 (Inorganic Analytical Chemistry)

Section cross-reference(s): 25

IT 281660-00-2P 281660-01-3P

RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(monolayer of a Na⁺-selective fluoroionophore on glass: connecting the fields of monolayers and optical detection of metal ions)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:754865 HCAPLUS Full-text

DOCUMENT NUMBER: 128:88655

TITLE: Purification of 2,3,6,7,10,11-hexamethoxytriphenylene and preparation of hexakiscarbonylmethyl and hexakiscyanomethyl derivatives of 2,3,6,7,10,11-hexahydroxytriphenylene

AUTHOR(S): Krebs, Frederik C.; Schioedt, Niels C.; Batsberg, Walther; Bechgaard, Klaus

CORPORATE SOURCE: Macromolecular Chemistry Group, Risoe National Laboratory, Condensed Matter Physics Chemistry Department, Roskilde, DK-4000, Den.

SOURCE: Synthesis (1997), (11), 1285-1290
CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 128:88655

AB 2,3,6,7,10,11-Hexamethoxytriphenylene was subjected to an improved purification procedure and demethylated to give 2,3,6,7,10,11- hexahydroxytriphenylene as the relatively stable trihydrate. The latter was alkylated with reactive halogen reagents giving 2,3,6,7,10,11-hexakis(cyanomethyl)-, 2,3,6,7,10,11-hexakis(N,N-diethylcarbamoylmethoxy)- (I), and 2,3,6,7,10,11-hexakis(ethoxycarbonylmethoxy)triphenylene (II). Reduction of I gave 2,3,6,7,10,11-hexakis(diethylaminoethoxy)triphenylene, and reduction of II followed by acetylation gave 2,3,6,7,10,11- hexakis(acetoxyethoxy)triphenylene. Hydrolysis of II gave 2,3,6,7,10,11-hexakis(carboxymethoxy)triphenylene, which was converted to the corresponding active N-hydroxysuccinimide ester by the DCC method.. The latter is a versatile core mol. that could be coupled with tert-Bu glycinate, L-phenylalanine, and tert-Bu L-phenylalaninate.

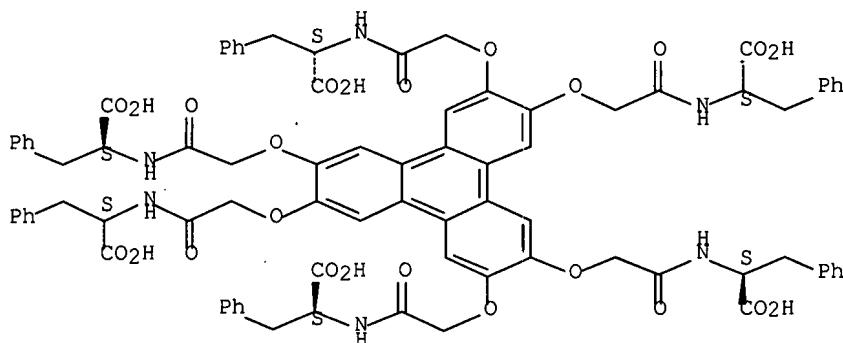
IT 200814-88-6P 200814-89-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of carbonylmethyl and cyanomethyl derivs. of triphenylenehexol)

RN 200814-88-6 HCAPLUS

CN L-Phenylalanine, N,N',N'',N''',N''',N''''-[2,3,6,7,10,11-triphenylenehexaylhexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis-(9CI) (CA INDEX NAME)

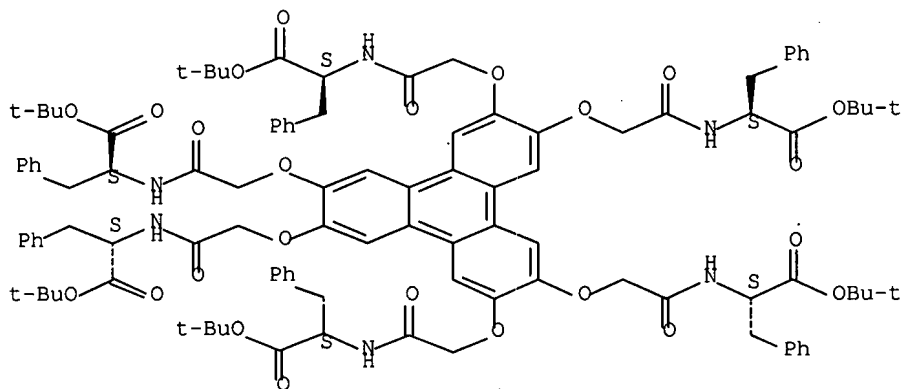
Absolute stereochemistry.



RN 200814-89-7 HCAPLUS

CN L-Phenylalanine, N,N',N'',N''',N''',N''''-[2,3,6,7,10,11-triphenylenehexaylhexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/538484

CC 25-28 (Benzene, Its Derivatives, and Condensed Benzenoid
Compounds)
IT 200814-81-9P 200814-83-1P 200814-84-2P 200814-87-5P
200814-88-6P 200814-89-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of carbonylmethyl and cyanomethyl derivs. of
triphenylenehexol)

FULL SEARCH HISTORY

=> d his nofile

(FILE 'HOME' ENTERED AT 14:26:45 ON 29 MAY 2007)

FILE 'HCAPLUS' ENTERED AT 14:27:11 ON 29 MAY 2007

E US20060111587/PN

L1 1 SEA ABB=ON PLU=ON US20060111587/PN
 D ALL
 SEL RN

FILE 'REGISTRY' ENTERED AT 14:28:14 ON 29 MAY 2007

L2 12 SEA ABB=ON PLU=ON (124-22-1/BI OR 15537-87-8/BI OR
 22118-09-8/BI OR 3178-75-4/BI OR 3674-07-5/BI OR
 4877-80-9/BI OR 582-17-2/BI OR 614733-37-8/BI OR
 70351-86-9/BI OR 721396-35-6/BI OR 721396-36-7/BI OR
 721396-37-8/BI)
 D SCAN

FILE 'LREGISTRY' ENTERED AT 14:29:21 ON 29 MAY 2007

FILE 'REGISTRY' ENTERED AT 14:29:30 ON 29 MAY 2007

E HEXABENZOCORONENE/CN

L3 2 SEA ABB=ON PLU=ON HEXABENZOCORONENE/CN
 D SCAN

FILE 'LREGISTRY' ENTERED AT 14:31:39 ON 29 MAY 2007

L4 STR

FILE 'REGISTRY' ENTERED AT 15:03:40 ON 29 MAY 2007

SCR 1840

DIS

L6 3 SEA SSS SAM L4 AND L5
 D SCAN
 D QUE STAT
 D L3 1-2 STR RSD
 D SCAN

FILE 'LREGISTRY' ENTERED AT 15:08:57 ON 29 MAY 2007

D QUE STAT L6

FILE 'REGISTRY' ENTERED AT 15:10:23 ON 29 MAY 2007

FILE 'REGISTRY' ENTERED AT 15:11:33 ON 29 MAY 2007

SCR 1847 OR 2043 OR 1918

L7 0 SEA SSS SAM L4 AND L5 NOT L7
 D QUE STAT L6

FILE 'LREGISTRY' ENTERED AT 15:13:54 ON 29 MAY 2007

L9 STR L4

FILE 'REGISTRY' ENTERED AT 15:28:28 ON 29 MAY 2007

L10 0 SEA SSS SAM L9 AND L5 NOT L7

L11 0 SEA SSS SAM L9 AND L5

FILE 'LREGISTRY' ENTERED AT 15:29:30 ON 29 MAY 2007

L12 STR L9

FILE 'REGISTRY' ENTERED AT 15:30:45 ON 29 MAY 2007

L13 6 SEA SSS SAM L12 AND L5 NOT L7
 D SCAN

FILE 'LREGISTRY' ENTERED AT 15:31:36 ON 29 MAY 2007

L14 STR L9

L15 FILE 'REGISTRY' ENTERED AT 15:32:36 ON 29 MAY 2007
0 SEA SSS SAM L14 AND L5 NOT L7
D QUE STAT

L16 FILE 'LREGISTRY' ENTERED AT 15:34:47 ON 29 MAY 2007
STR L14

L17 FILE 'REGISTRY' ENTERED AT 15:46:48 ON 29 MAY 2007
0 SEA SSS SAM L16
D QUE STAT L17

L18 FILE 'LREGISTRY' ENTERED AT 15:47:28 ON 29 MAY 2007
STR L16

L19 FILE 'REGISTRY' ENTERED AT 15:48:30 ON 29 MAY 2007
0 SEA SSS SAM L18

L20 E TRIPHENYLENE/CN
1 SEA ABB=ON PLU=ON TRIPHENYLENE/CN
D SCAN
D RSD
E 5253.7.18/RID
E 5253.7/RID
E ANTHRACENE/CN

L21 1 SEA ABB=ON PLU=ON ANTHRACENE/CN
D SCAN
D RSD
E 2508.17.56/RID
E 2508.17/RID
E TETRACENE/CN

L22 2 SEA ABB=ON PLU=ON TETRACENE/CN
D SCAN
E NAPHTHACENE/CN

L23 1 SEA ABB=ON PLU=ON NAPHTHACENE/CN
D SCAN
D RSD
E PENTACENE/CN

L24 1 SEA ABB=ON PLU=ON PENTACENE/CN
D SCAN
D RSD
E 8481.2.11/RID

L25 QUE ABB=ON PLU=ON 8481.2/RID

L26 QUE ABB=ON PLU=ON 5253.7/RID
E 2508.17/RID

L27 QUE ABB=ON PLU=ON 2508.17/RID
E PHENANTHRENE/CN

L28 1 SEA ABB=ON PLU=ON PHENANTHRENE/CN
D RSD
E 2404.11.109/RID
E 2404.11/RID

L29 QUE ABB=ON PLU=ON 2404.11/RID
E PERYLENE/CN

L30 1 SEA ABB=ON PLU=ON PERYLENE/CN
D RSD
E 6828.2.8/RID
E 6828.2/RID

L31 QUE ABB=ON PLU=ON 6828.2/RID
E FLUORENE/CN

L32 1 SEA ABB=ON PLU=ON FLUORENE/CN
D RSD
E 1839.6.36/RID
E 1839.6/RID

L33 QUE ABB=ON PLU=ON 1839.6/RID
E PYRENE/CN

L34 1 SEA ABB=ON PLU=ON PYRENE/CN
D RSD
E 3593.5.31/RID
E 3593.5/RID

L35 QUE ABB=ON PLU=ON 3593.5/RID
E CORONENE/CN

L36 1 SEA ABB=ON PLU=ON CORONENE/CN
D RSD
E 9418.2.2/RID
E 9418.2/RID

L37 QUE ABB=ON PLU=ON 9418.2/RID
E HEXABENZOCORONENE/CN
D 1-2 STR RSD

L38 2 SEA ABB=ON PLU=ON HEXABENZOCORONENE/CN
D 1-2 STR RSD
D 1-2 CN
E 13685.1.1/CN
E 13685.1.1/RID

L39 QUE ABB=ON PLU=ON 13685.1/RID
E 14022.1.1 /RID
E 14022.1/RID

L40 QUE ABB=ON PLU=ON 14022.1/RID

L41 318451 SEA ABB=ON PLU=ON (L25 OR L26 OR L27) OR L29 OR L31
OR L33 OR L35 OR L37 OR (L39 OR L40)
D QUE STAT L4

L42 0 SEA SUB=L41 SSS SAM L4

L43 17 SEA SUB=L41 SSS FUL L4
D SCAN

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FILE 'REGISTRY' ENTERED AT 16:17:24 ON 29 MAY 2007

SAV L43 KUM484REG/A

L44 2 SEA ABB=ON PLU=ON L2 AND L43
D SCAN

L45 10 SEA ABB=ON PLU=ON L2 NOT L44
D SCAN

FILE 'HCAPLUS' ENTERED AT 16:19:46 ON 29 MAY 2007

D SCAN L1

L46 2 SEA ABB=ON PLU=ON L44
D SCAN

L47 6 SEA ABB=ON PLU=ON L43
D SCAN

FILE 'REGISTRY' ENTERED AT 16:22:38 ON 29 MAY 2007

D L43 1-17 LC

FILE 'HCAPLUS' ENTERED AT 16:23:39 ON 29 MAY 2007

FILE 'CAOLD' ENTERED AT 16:23:46 ON 29 MAY 2007

L48 0 SEA ABB=ON PLU=ON L43

FILE 'HCAPLUS' ENTERED AT 16:23:54 ON 29 MAY 2007

FILE 'ZCAPLUS' ENTERED AT 16:25:35 ON 29 MAY 2007

E TAKEUCHI M/AU

L49 QUE ABB=ON PLU=ON TAKEUCHI M?/AU
E IKEDA M/AU

L50 QUE ABB=ON PLU=ON IKEDA M?/AU
E SHINKAI S/AU

L51 QUE ABB=ON PLU=ON SHINKAI S?/AU

L52 QUE ABB=ON PLU=ON L49 AND L50 AND L51

L53 QUE ABB=ON PLU=ON (L49 OR L50 OR L51)

FILE 'HCAPLUS' ENTERED AT 16:28:13 ON 29 MAY 2007

D L1 PA

FILE 'ZCAPLUS' ENTERED AT 16:28:13 ON 29 MAY 2007

E KYUSHU/CO
E KYUSHU TLO/CO

10/538484

L54 QUE ABB=ON PLU=ON (KYUSHU(W)TLO?)/PA,CS,SO,CO
L55 QUE ABB=ON PLU=ON L53 AND L54

FILE 'HCAPLUS' ENTERED AT 16:30:11 ON 29 MAY 2007

L56 27 SEA ABB=ON PLU=ON L49 AND L50 AND L51
L57 1 SEA ABB=ON PLU=ON L53 AND L54
D SCAN
L58 QUE ABB=ON PLU=ON ELECTR?(2A)TRANSPORT? OR HOLE(2A) (M
OBIL? OR TRANSPORT? OR TRANSFER?)
L59 62 SEA ABB=ON PLU=ON L53 AND L58
L60 88 SEA ABB=ON PLU=ON L56 OR L57 OR L59

FILE 'ZCAPLUS' ENTERED AT 16:33:24 ON 29 MAY 2007

L61 QUE ABB=ON PLU=ON PY<2002 OR PRY<2002 OR AY<2002 OR
MY<2002 OR REVIEW/DT

FILE 'HCAPLUS' ENTERED AT 16:33:42 ON 29 MAY 2007

L62 0 SEA ABB=ON PLU=ON L1 AND L61

FILE 'ZCAPLUS' ENTERED AT 16:33:58 ON 29 MAY 2007

L63 QUE ABB=ON PLU=ON PY<2003 OR PRY<2003 OR AY<2003 OR
MY<2003 OR REVIEW/DT

FILE 'HCAPLUS' ENTERED AT 16:34:25 ON 29 MAY 2007

L64 1 SEA ABB=ON PLU=ON L1 AND L63
L65 55 SEA ABB=ON PLU=ON L60 AND L61
D SCAN L1
D QUE
L66 QUE ABB=ON PLU=ON (CHARGE OR ELECTR?) (2A) (MOBIL? OR
TRANSPORT? OR TRANSFER?)
L67 32 SEA ABB=ON PLU=ON L65 AND L66
SAV L47 KUM484HCP/A
SAV L67 KUM484HCPIN/A
D QUE L67
D L67 1-32 IBIB ABS
D QUE STAT L47
D L47 1-6 IBIB ABS HITSTR HITIND